

Heavy Ion SEE

Test Org.*	Device	Function	Technology	Mfr.	Effective SEU LET* Threshold	Device Xsection (cm ²)	Bits Tested	Bit Xsection (cm ²)	Test Date	LUth	LU Xsection (cm ²)	Fac.	Remarks	31-Aug-99
Op-Amp														
Note: Entries in RED indicate data added since the 1997 Compendium.														
ADI	AD8001	800 mHz feedback	Bipolar-XFCB process	ADI	>82				1994	>82			M. DeLaus, et al, 94IEEE Wrkshp Rec., pg 104.	
ARSP	C12014	Programmable	CMOS	HAR	3	1.0E-03			May-90				Spikes	
GSFC	EL2243	Analog	Bipolar	ELN	5	1.0E-03			1994	>90			LaBel, et al, 94IEEE Wrkshp Rec., pg 64.	
LMM	HS-1135	Rad-hard, high speed, low power, current feedback	Bipolar, UHF-1	HAR	18.0	2.9E-04			97-98	>84			BNL Bogorad, et al, 99NSREC Poster Paper PD-1 Preprint. Cross section for all 50 μS transients > 0.2 V.	
LMM	HS-22620RH	Dual, rad-hard, wideband, high input impedance	Bipolar	HAR	18.0	5.6E-04			97-98	>84			BNL Bogorad, et al, 99NSREC Poster Paper PD-1 Preprint. Cross section for all 0.5 μS transients > 1.0 V.	
ARSP	HS3530RH	Single, Low power	rad hard	HAR					Dec-93				Koga et al, 93IEEE TNS, No. 6, pg.1838. D/C 8839.	
CNES/ARSP	LM108	Single, low bias	Bipolar	MOT	~2				1994	>27			Ecoffet et al, 94IEEE Worskhop Rec., pg 72.	
GSFC	LM108	Single, low bias	Bipolar	NSC	<26				1994				LaBel, et al, 94IEEE Wrkshp Rec., pg 64. TID degradation at <2.5 krad obscured SEE data.	
ARSP	LM108	Op Amp	Bipolar	NSC	2	-5.0E-3			1997	>60			UCB Koga, et al, 97IEEE TNS, No. 6, pg. 2325. D/C 9533. No LET _{th} dependence on input voltage delta.	
JPL	LM108A	Single, low bias	Bipolar	LTN	<<7	6.0E-04			Nov-95				Transients only. Wide FWHM variability at LET = 44.	
JPL	LM108A	Op Amp	Bipolar	LTN					Nov-95	<<7	6.0E-04	TAM	Wide amplitude variability at LET = 44	
GSFC	LM108AH	Single, low bias	Bipolar	PMI	24	5.0E-04			Jun-94	~60			LaBel. D/C B9412AD.	
GSFC	LM124	Quad, low power	Bipolar	NSC					Jun-94	>90			LaBel	
GSFC	LM158	Dual, low power	Bipolar	NSC					Jul-94	>100			LaBel. D/C AA0432458?	
LMM	LM158	Dual, low power	Bipolar	NSC	2.5	1.2E-04			97-98	>84			BNL Bogorad, et al, 99NSREC Poster Paper PD-1 Preprint. Cross section for all 10 μS transients > 0.2 V.	
LMM	LM158	Dual, low power	Bipolar	NSC	7.9	7.2E-05			97-98	>84			BNL Bogorad, et al, 99NSREC Poster Paper PD-1 Preprint. Cross section for all 10 μS transients > 1.0 V.	
LMM	LM158	Dual, low power	Bipolar	NSC	26.5	2.3E-05			97-98	>84			BNL Bogorad, et al, 99NSREC Poster Paper PD-1 Preprint. Cross section for all 10 μS transients > 4.0 V.	
CNES	LM218H	Hi-slew rate, wide bandwidth	Bipolar	NSC					1994	>27			Ecoffet et al, 94IEEE Worskhop Rec., pg 72.	
ARSP	OP-05	Low drift	Bipolar	PMI					Dec-93				Koga et al, 93IEEE TNS, No. 6, pg 1838. D/C 9206	
GSFC	OP-07AJ	Low drift	Bipolar	PMI	12	3.0E-04			Jun-94	>50			LaBel 6/94. D/C 9345.	
ARSP	OP-15	Single, bipolar JFET	Bipolar	PMI					Dec-93				Koga et al, 93IEEE TNS, No. 6, pg 1838. D/C 9240. No LU.	
LMM	OP-270	Very low noise, precision amplifier	Bipolar	ADI	7.5	1.4E-03			97-98	>84			BNL Bogorad, et al, 99NSREC Poster Paper PD-1 Preprint. Cross section for all 0.5 μS transients > 1.0 V.	
LMM	OP-270	Very low noise, precision amplifier	Bipolar	ADI	83.9	9.0E-05			97-98	>84			BNL Bogorad, et al, 99NSREC Poster Paper PD-1 Preprint. Cross section for all 0.5 μS transients > 1.0 V.	
LMM	OP-27A	Low noise, precision	Bipolar	ADI	7.9	1.3E-04			97-98	>84			BNL Bogorad, et al, 99NSREC Poster Paper PD-1 Preprint. Cross section for all 1.0 μS transients > 0.2 V. Damage at LET = 83.9.	
LMM	OP-27A	Low noise, precision	Bipolar	ADI	7.9	4.6E-05			97-98	>84			BNL Bogorad, et al, 99NSREC Poster Paper PD-1 Preprint. Cross section for all 1.0 μS transients > 1.0 V. Damage at LET = 83.9.	

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